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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,178

10/10/2006

Rainer Hald

RUF-06-1175

8245

35811 7590 10/01/2010
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EXAMINER

SAHA, BIJAY S

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

10/01/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No. 10/583,178	Applicant(s) HALD ET AL.	
	Examiner BIJAY S. SAHA	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on 09/03/2010 has been entered.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/03/2010 has been entered.

Status of Application

The amended claim 20 is pending and presented for the examination. The original claims 1-19 have been cancelled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al US 2001/0038938 (hereinafter US'938) in view of Hirai et al US 2003/0194608 (hereinafter US'608) and Nakatsugawa US 4,483,906 (US'906).

Regarding claim 20, US'938 teaches an electrochemical element (fig 8 and Fig 9 page, examiner considers voltaic element is equivalent to voltaic element), lithium secondary battery (para 0039 page 3), and a housing envelope (para 0027), a flexible

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envelope (para 0034), envelope formed by laminate film (para 0154), connected to positive and negative electrodes (Fig 1B and 2B), connected to safety electronics (Fig 5, part # 106, 105), conducted exteriorly (Fig 6 part # 106), electrode formed of copper (para 0113), set of positive and negative electrode collector (Fig 8, Fig 9 and Fig 10), external electrodes (#226 Fig 12 and 13), external electrode or out lead (#203 Fig 8) and collectors made of copper foil (para 0069).

Although US'938 teaches terminal made of "...foils of various metals ...such as copper.....may be surface coated" (para 0085), US'938 does not explicitly teach coating the copper foils by nickel.

US'608 teaches copper member for battery (Title), terminal made of "...copper (Cu) including nickel plated copper..." (para 0033).

US'906 teaches the copper foil production process (col 5 line 33), electroplating of 0.2 micron nickel coating on copper foil (Col 5 line 46-54, Example 1), nickel layer formed one or both sides of said copper layer (Abstract).

At the time of invention it would have been obvious to a person of ordinary skill to make an electrode element (US'938's teaching) utilizing the nickel plated copper electrodes (US'608 teaching). The suggestion or motivation for doing so would have been to "[e]xcellent in corrosion resistance ..when using foil shaped ...or plate shaped

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member as such a terminal ..." (US'608) and a "[p]rocess ...suitable for commercial production" (US'906).

Regarding the claim limitation of "without Ni coating", US'938 teaches "terminals of various metals...may be surface coated with titanium, tantalum, chromium and zinc"; it would be obvious to a person of ordinary skill not to coat the metal surface at all. Examiner points out that applicants specification discloses "copper is preferably coated with nickel" (applicants specification para 0017 and applicants' arguments page 3 second para).

Regarding the nickel layer thickness range, examiner considers: In MPEP 2144.05 [R-5] Obviousness of Ranges, "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists".

Summary

The claim 20 is rejected.

Response to Arguments

Applicant has not submitted any arguments along with the submission of the request for continued examination. The previous arguments filed on 08/05/2010 have

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been fully considered but they are not persuasive. Applicants have cancelled claims 1-19; so the related arguments are moot.

Applicants argue “....appropriate corrosion protection in the context of the claimed voltaic elements...”. Examiner points out that US’608 teaches “excellent in corrosion resistance” (para 0028) and nickel coated Cu (para 0033).

Applicants argue “...different approach and only applied the nickel plating to the diverters, but not the collectors...”. Examiner points out that US’938 teaches “terminals of various metals...may be surface coated with titanium, tantalum, chromium and zinc”; it would be obvious to a person of ordinary skill not to coat the metal surface at all. Examiner points out that applicants specification discloses “copper is preferably coated with nickel” (applicants’ specification para 0017 and applicants’ arguments page 3 second para).

Claim stands rejected over the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BIJAY S. SAHA whose telephone number is (571) 270-

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5781. The examiner can normally be reached on Monday- Friday 8:00 a.m. EST - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Mayes can be reached on (571) 272 1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BIJAY S SAHA/
Examiner, Art Unit 1793

September 28, 2010

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793